

Volume 13 Contents

Number 1 January 1992

Na⁺/Ca²⁺ exchange in plasma membrane vesicles from a glucose-responsive insulinoma	I
<i>M. Hoenig, L.H. Culbertson, J.M. Clement and D.C. Ferguson</i>	
Calcium pump isoforms: Diversity, selectivity and plasticity	9
REVIEW ARTICLE	
<i>A.K. Grover and I. Khan</i>	
Evaluation of platelet calcium ion mobilization by the use of various divalent ions	19
<i>Y. Ozaki, Y. Yatomi and S. Kume</i>	
Effects of photolabile calcium chelators on fluorescent calcium indicators	29
<i>R.S. Zucker</i>	
The effect of alkanols on Ca²⁺ transport in brain mitochondria	41
<i>H. Rottenberg and M. Marbach</i>	
Mechanisms of activated Ca²⁺ entry in the rat pancreatoma cell line, AR4-2J	49
<i>G.S.J. Bird, H. Takemura, O. Thastrup, J.W. Putney Jr, and F.S. Menniti</i>	
Microspectrofluorometry as a tool for investigation of non-calcium interactions of Indo-1	59
<i>F. Bancel, J.-M. Salmon, J. Vigo and P. Viallet</i>	
Single pancreatic β-cells from normal rats exhibit an initial decrease and subsequent increase in cytosolic free Ca²⁺ in response to glucose	69
<i>T. Yada, M. Kakei and H. Tanaka</i>	
BOOK REVIEW	
Novel Calcium-Binding Proteins: Fundamentals and Clinical Implications	77
<i>by C.W. Heizmann</i>	

Number 2 February 1992

Different localization of inositol 1,4,5-trisphosphate and ryanodine binding sites in rat liver	79
<i>L. Feng, B. Pereira and N. Kraus-Friedmann</i>	
Subcellular distribution of cytosolic Ca²⁺ in isolated rat hepatocyte couplets:	89
Evaluation using confocal microscopy	
<i>M.H. Nathanson and A.D. Burgstahler</i>	
Presence of Na⁺/Ca²⁺ exchange activity and its role in regulation of intracellular calcium concentration in bovine adrenal chromaffin cells	99
<i>Y.-J. Chern, S.-H. Chueh, Y.-J. Lin, C.-M. Ho and L.-S. Kao</i>	
The effects of Ca²⁺ and calmodulin on adenylyl cyclase activity in plasma membranes derived from neural and non-neural cells	107
<i>K.K. Caldwell, C.L. Boyajian and D.M.F. Cooper</i>	
The effect of endotoxemia on concanavalin A induced alterations in cytoplasmic free calcium in rat spleen cells as determined with Fluo-3	123
<i>A.F. Hagar and J.A. Spitzer</i>	

Fluorescence lifetime imaging of calcium using Quin-2	131
<i>J.R. Lakowicz, H. Szmajdzinski, K. Nowaczyk and M.L. Johnson</i>	
Abnormalities in the regulation of blood platelet free cytosolic calcium in malignant hyperthermia.	149
I. Human platelets	
<i>H.S. Fink, J.G. Hofmann, H. Hentschel and U. Till</i>	
Abnormalities in the regulation of blood platelet free cytosolic calcium in malignant hyperthermia.	157
II. Pig platelets	
<i>H.S. Fink, S. Maak, G. von Lengerken and U. Till</i>	
Parallel effects of arachidonic acid on insulin secretion, calmodulin-dependent protein kinase activity and protein kinase C activity in pancreatic islets	163
<i>M. Landt, R.A. Easom, J.R. Colca, B.A. Wolf, J. Turk, L.A. Mills and M.L. McDaniel</i>	
An acute release of Ca^{2+} from sequestered intracellular pools is not the primary transduction mechanism causing the initial burst of PRL and TSH secretion induced by TRH in normal rat pituitary cells	173
<i>N. Sato, X. Wang and M.A. Greer</i>	
Buffering of calcium in the vicinity of a channel pore	183
<i>M.D. Stern</i>	

Effect of lysophospholipids, arachidonic acid and other fatty acids on regulation of Ca^{2+} transport in permeabilized pancreatic islets	193
<i>I. Rustenbeck and S. Lenzen</i>	
Thrombin stimulates L-type calcium channels of guinea pig cardiomyocytes in cell-attached patches but not after intracellular dialysis	203
<i>R. Albitz, G. Droogmans, B. Nilius, and R. Casteels</i>	
Interactions of calcium with yeast mitochondria	211
<i>S. Uribe, P. Rangel and J.P. Pardo</i>	
Glucose sensing of individual pancreatic β-cells involves transitions between steady-state and oscillatory cytoplasmic Ca^{2+}	219
<i>E. Grapengeter, E. Gylfe and B. Hellman</i>	
Intracellular calcium 'signatures' evoked by different agonists in isolated bovine aortic endothelial cells	227
<i>M. Lynch, J.I. Gillespie, J.R. Greenwell and C. Johnson</i>	
Relationship between cytosolic calcium and oxygen consumption in isolated rat hearts	235
<i>S.T. Wu, S. Kojima, W.W. Parmley and J. Wikman-Coffelt</i>	
Fast axonal transport is modulated by altering trans-axolemmal calcium flux	249
<i>A.C. Breuer, M. Bond and M.B. Atkinson</i>	
Thapsigargin increases cytoplasmic free Ca^{2+} without influencing steroidogenesis in chicken granulosa cells	263
<i>P. Morley, B.K. Tsang, J.F. Whitfield and J-L. Schwartz</i>	

EDITORIAL : Calcium fluxes in cells: new views on their significance	273
<i>R.J.P. Williams</i>	
Ehrlich tumour cells: Ca^{2+}-uptake modification by aluminium lactate	277
<i>L.J. Anghileri</i>	
Effect of thapsigargin on cardiac muscle cells	281
<i>A. Wrzosek, H. Schneider, S. Grueninger and M. Chiesi</i>	
L-Glutamate and acetylcholine mobilise Ca^{2+} from the same intracellular pool in cerebellar granule cells using transduction mechanisms with different Ca^{2+} sensitivities	293
<i>A.J. Irving, G.L. Collingridge and J.G. Schofield</i>	
An intracellular calcium store regulates protein synthesis in HeLa cells, but it is not the hormone-sensitive store	303
<i>S.F. Preston and R.D. Berlin</i>	
Spectral characterization of the effect of viscosity on Fura-2 fluorescence: Excitation wavelength optimization abolishes the viscosity artifact	313
<i>W.B. Busa</i>	
Ionomycin produces an improved volume recovery by an increased efflux of taurine from hypoosmotically stressed molluscan red blood cells	321
<i>S.K. Pierce and L.M. Rowland-Faux</i>	
Different protein kinase C isozymes could modulate bradykinin-induced extracellular calcium-dependent and -independent increases in osteoblast-like MC3T3-E1 cells	329
<i>T. Sakai, Y. Okano, Y. Nozawa and N. Oka</i>	
Insulin and progesterone increase $^{32}\text{PO}_4$-labeling of phospholipids and inositol 1,4,5-trisphosphate mass in <i>Xenopus</i> oocytes	341
<i>B.J. Stith, C. Jaynes, M. Goalstone and S. Silva</i>	

NEW DEVELOPMENTS IN THE CALMODULIN FIELD

Collected Papers and Reviews — Edited by Ernesto Carafoli and Claude Klee

Preface	353
<i>E. Carafoli and C. B. Klee</i>	
Calcium and calmodulin	355
<i>R.J.P. Williams</i>	
The linker of calmodulin — to helix or not to helix	363
<i>R.H. Kretsinger</i>	
The solution structures of calmodulin and its complexes with synthetic peptides based on target enzyme binding domains	377
<i>J. Trewhella</i>	
Solution structure of calmodulin and its complex with a myosin light chain kinase fragment	391
<i>M. Ikura, G. Barbato, C.B. Klee and A. Bax</i>	
Decoding calcium signals by multifunctional CaM kinase	401
<i>H. Schulman, P.I. Hanson and T. Meyer</i>	

In vivo <i>Paramecium</i> mutants show that calmodulin orchestrates membrane responses to stimuli	413
<i>C. Kung, R.R. Preston, M.E. Maley, K-Y. Ling, J.A. Kanabrocki, B.R. Seavey and Y. Saimi</i>	
Ca²⁺/calmodulin-regulated nitric oxide synthases	427
<i>H.H.H.W. Schmidt, J.S. Pollock, M. Nakane, U. Förstermann and F. Murad</i>	
Mutational analysis of calmodulin in <i>Saccharomyces cerevisiae</i>	435
<i>T.N. Davis</i>	
Yeast calmodulin: Structural and functional elements essential for the cell cycle	445
<i>Y. Ohya and Y. Anraku</i>	
Regulation of expression of calmodulin and calmodulin-related genes by environmental stimuli in plants	457
<i>J. Braam</i>	
Molecular pharmacology of calmodulin pathways in the cell functions	465
<i>H. Hidaka and T. Ishikawa</i>	

Number 8 August 1992

A novel principle for quantitation of fast intracellular calcium changes using Fura-2 and a modified image processing system — applications in studies of neutrophil motility and phagocytosis	473
<i>M. Gustafson and K-E. Magnusson</i>	
Thapsigargin reveals evidence for fMLP-insensitive calcium pools in human leukocytes	487
<i>J.S. Røtnes and J.G. Iversen</i>	
Mechanically induced electrical and intracellular calcium responses in normal and cancerous mammary cells	501
<i>K. Enomoto, K. Furuya, S. Yamagishi and T. Maeno</i>	
The effects of halothane and isoflurane on intracellular Ca²⁺ regulation in cultured cells with characteristics of vascular smooth muscle	513
<i>P.A. Iaizzo</i>	
Transient but not oscillating component of the calcium mobilizing response to gonadotropin-releasing hormone depends on calcium influx in pituitary gonadotrophs	521
<i>N.C. Guérineau, R. Bouali-Benazzouz, J-B. Corcuff, M-C. Audy, M. Bonnin and P. Mollard</i>	
Actions of two native GnRHs and protein kinase C modulators on goldfish pituitary cells. Studies on intracellular calcium levels and gonadotropin release	531
<i>R.M. Jobin and J.P. Chang</i>	

Number 9 October 1992

Modulation of inositol(1,4,5)trisphosphate-sensitive calcium store content during continuous receptor activation and its effects on calcium entry	541
<i>T.J. Shuttleworth and J.L. Thompson</i>	
Calcium influx evoked by Ca²⁺ store depletion in human platelets is more susceptible to cytochrome P-450 inhibitors than receptor-mediated calcium entry	553
<i>P. Sargeant, W.D. Clarkson, S.O. Sage and J.W.M. Heemskerk</i>	
Testosterone sensitive dihydropyridine binding in the Harderian gland of the male hamster	565
<i>P. Kumar, S.G. Brodie, M.K. Vaughan, A. Menendez-Pelaez, R.J. Reiter and J.P. Chambers</i>	

Evidence that basal secretion of relaxin by individual cultured large luteal cells is influenced by mobilization of intracellular calcium: Analysis by a reverse hemolytic plaque assay <i>M.J. Taylor and C.L. Clark</i>	571
Solitary calcium spike dependent on calmodulin and plasma membrane Ca^{2+} pump <i>B. Foder and O. Scharff</i>	581
Beta-adrenergic effects on cellular Na, Mg, Ca, K and Cl in vascular smooth muscle: Electron probe analysis of rabbit pulmonary artery <i>A. Ziegler, A.V. Somlyo and A.P. Somlyo</i>	593
Number 10 November 1992	
Interaction between mitogens upon intracellular Ca^{2+} pools in murine fibroblasts <i>M.G. Cattaneo, L. Magrini, S.B. Sparber and L.M. Vicentini</i>	603
Characterization of the energy-dependent, mating factor-activated Ca^{2+} influx in <i>Saccharomyces cerevisiae</i> <i>K.R. Prasad and P.M. Rosoff</i>	615
Cellular origin of the rapidly exchangeable calcium pool in the cultured neonatal rat heart cell <i>J.A. Post and G.A. Langer</i>	627
Ryanodine-affinity chromatography purifies 106 kD Ca^{2+} release channels from skeletal and cardiac sarcoplasmic reticulum <i>G. Salama, M. Nigam, K. Shome, M.S. Finkel, C. Lagenaur and N.F. Zaidi</i>	635
Mechanisms of perturbation of erythrocyte calcium homeostasis in favism <i>G. Damonte, L. Guida, A. Sdraffa, U. Benatti, E. Melloni, G. Forteleoni, T. Meloni, E. Carafoli and A. De Flora</i>	649
Inhibition of the human erythrocyte calcium pump by dimethyl sulfoxide <i>P.J. Romero</i>	659
Subject Index to Volume 13	669
Author Index to Volume 13	673

